

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US03/18716

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) Please See Extra Sheet.

US CL 514/45, 269; 536/27.21; 546/310; 562/11; 571; 564/113

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/45, 269; 536/27.21; 546/310; 562/11; 571; 564/113

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

File CA Plus structure, chemical name and inventor name searches

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 93/23014 A1 (Martin et al.) 25 November 1993 (25.11.93), see entire document.	1-6, 20-24, 26-30, 32-34, 46-53
X	STOLFI et al. Biochemical Modulation of Tumor Cell Energy: Regression of Advanced Spontaneous Murine Breast Tumors with a 5-Fluorouracil-containing Drug Combination," Cancer Research. 01 August 1992, Vol. 52, No. 15, pages 4074-4081, see entire document.	1-6, 20-24, 26-30, 32-34, 46-53

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents	T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	X	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	Y	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may have priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	A	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

12 NOVEMBER 2003

Date of mailing of the international search report

25 NOV 2003

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
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Authorized officer

Lawrence E. Crane
LAWRENCE ERIC CRANE

Best Available Copy

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	COLOFIORE et al. Biochemical Modulation of Tumor Cell Energy IV. Evidence for the Contribution of Adenosine Triphosphate (ATP) Depletion to Chemotherapeutically Induced Tumor Regression. Biochemical Pharmacology, 27 November 1995, Vol. 50, No. 11, pages 1943-1948, see entire document.	1-6, 20-24, 26-30, 32-34, 46-53
X	MARTIN et al. Marked Enhancement in vivo of Paclitaxel's (Taxol's) Tumor-Regressing Activity by ATP-Depleting Modulation. Anti-Cancer Drugs. 1996, Vol. 7, pages 655-659, see entire document.	1-6, 20-24, 26-30, 32-34, 46-53
X	KOUTCHER et al. Radiation Enhancement by Biochemical Modulation and 5-Fluorouracil. International Journal of Radiation Oncology Biology Physics. 01 December 1997, Vol. 39, No. 5, pages 1145-1152, see entire document.	1-6, 20-24, 26-30, 32-34, 46-53
X	GESCHWIND et al. Novel Therapy for Liver Cancer: Direct Intraarterial Injection of a Potent Inhibitor of ATP Production. Cancer Research. 15 July 2002, Vol. 62, pages 3909-3913, see entire document.	1-6, 20-24, 26-30, 32-34, 46-53
X	NORD et al. Apoptosis Induced in Advanced CD8F1-Murine Mammary Tumors by the Combination of PALA, MMPR and 6AN Precedes Tumor Regression and Is Preceded by ATP Depletion. Cancer Chemotherapy and Pharmacology. 1997, Vol. 40, pages 376-384, see entire document.	1-6, 20-24, 26-30, 32-34, 46-53

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IPC (7)

A61K 31/70, 31/505; C07H 19/16; C07D 211/72; C07F 9/22; C07C 229/00; C07C 241/00

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/US05/16716

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US03/18716

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☒ Claims Nos.: 7-19; 25, 31, and 35-45
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)